PHILIP MORRIS USA

RESEARCH AND DEVELOPMENT DEPARTMENT

HOLLAND TEST #113

MR4-06EK
MR6-06EK
MR8-06EK
PM6-06EK
PM8-06EK

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HOLLAND TEST #113

The following cigarette brands from Holland were received at R & D and submitted for analyses on March 23, 1976. These cigarettes were of February, 1976 production.

Bergen-Op-Zoom

Marlboro Long Size 20's (Box) - Italy
Marlboro King Size 20's (Soft Pack) - Italy
Philip Morris King Size 20's (Soft Pack) - Italy

Eindhoven

Marlboro 100 20's (Soft Pack) - Italy & France
Philip Morris Multifilter 100 20's (Soft Pack) - Italy

The Marlboro long size cigarettes (Bergen-Op-Zoom - Italy) were not different from the previous average in any of the parameters tested.

The Marlboro king size cigarettes (Bergen-Op-Zoom - Italy) were different from the previous average only in filter RTD.

The Marlboro 100 cigarettes (Eindhoven - Italy & France) were not different from the previous average in any of the parameters tested.

This is the second sampling of Philip Morris king size cigarettes from Bergen-Op-Zoom designated for Italy. The current sample was not different from the previous test in any of the parameters tested.

The Philip Morris Multifilter 100 cigarettes (Eindhoven - Italy) were different from the previous average only in total reducing sugars.

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HOLLAND TEST #113

	Bergen-Op-Zoom Marlboro Long Size 20's (Box) - Italy			Bergen-Op-Zoom Marlboro King Size 20's (Soft Pack) Italy			Eindhoven Marlboro 100 20's (Soft Pack) Italy			Bergen-Op-Zoom Philip Morris King Size 20's (Soft Pack) Italy		Eindhoven Philip Morris Multifilter 100 20's (Soft Pack) Italy	
	Current	Prev. Avg.	U.S.[2]	Current	Prev. Avg.	U.S.[2]	Current	Prev. Avg.	U.S.[2]	Current	Test #112	Current	Prev. Avg.
Smoke													
Butt Length, mm	25	25	26	28	28	28	33	33	34	27	27	33	33
FTC Tar, mg/cigt.	19.5	20.4[3]	17.4	17.6	18.7	17.4	18.5	18.6	17.2	17.0	18.5	16.1	17.1[3]
TPM, mg/cigt.	24.4	25.7[3]	21.9	21.6	23.1	21.9	21.9	22.4	20.6	21.2	23.3	18.6	19.7[3]
Nicotine, mg/cigt.	1.28	1.30[3]	1.05	1.24	1.21	1.09	1.44	1.35	1.10	1.19	1.21	1.02	1.11[3]
Water, mg/cigt.	3.6	4.0	3.4	2.8	3.2	3.4	2.0	2.4	2.3	3.0	3.6	1.5	1.5
Puffs/cigt.	9.1	8.9	8.2	9.6	9.1	8.7	12.1	11.3	9.5	9.0	9.1	11.0	10.6
Filtration Eff., %	46	45	47	50	46	47	47	45	49	49	45	50	51
Cigarette													
Total RTD, in. of H_2O	4.2	4.2	4.5	4.6	4.3	4.8	4.0	4.3	5.0	4.4	4.7	5.3	5.5
mm of H_2O	107	107	114	117	109	122	102	109	127	112	119	135	140
Static Burn. Time, min.	8.0	7.8	7.7	7.3	7.9	7.6	7.5	7.9	6.8	7.3	7.4	7.1	7.7
Length, mm	79.5	79.8	79.6	84.4	84.6	84.5	98.7	98.7	99.4	84.7	84.3	98.8	98.8
Circumference, mm	25.1	25.2	24.9	25.1	25.2	25.0	24.8	24.7	24.6	25.0	25.1	24.6	24.7
Diameter, mm	8.0	8.0	7.9	8.0	8.0	8.0	7.9	7.9	7.8	8.0	8.0	7.8	7.9
Paper													
Porosity, sec.	14	14	21	14	16	20	14	14	13	15	14	28	26
Filter													
RTD, in. of H_2O	2.8	2.8	2.8	3.1	2.6	2.9	2.5	2.5	2.9	2.9	3.0	3.0	3.0
mm of H_2O	71	71	71	79	66	74	64	64	74	74	76	76	76
Inner, in. of H_2O	-	-	-	-	-	-	-	-	-	-	-	1.5	1.6
mm of H_2O	-	-	-	-	-	-	-	-	-	-	-	38	41
Outer, in. of H_2O	-	-	-	-	-	-	-	-	-	-	-	1.5	1.4
mm of H_2O	-	-	-	-	-	-	-	-	-	-	-	38	36
Length, mm	17.9	18.0	19.0	19.9	19.9	20.9	25.1	25.0	26.9	19.9	19.9	25.2	25.2
Inner	-	-	-	-	-	-	-	-	-	-	-	12.5	12.8
Outer	-	-	-	-	-	-	-	-	-	-	-	12.7	12.4
Weight, g	0.13	0.13	0.14	0.14	0.14	0.15	0.18	0.17	0.17	0.14	0.14	0.25	0.25
Inner	-	-	-	-	-	-	-	-	-	-	-	0.16	0.16
Outer	-	-	-	-	-	-	-	-	-	-	-	0.09	0.09
Carbon, mg/plug	-	-	-	-	-	-	-	-	-	-	-	76	75
Tipping paper length, mm	22	22	23	25	25	25	30	30	31	24	24	30	30
Dilution, %	-	-	-	-	-	-	20	14	None	-	-	-	-
Filler													
Total alkaloids, %	1.66	1.55	1.47	1.62	1.62	1.48	1.60	1.59	1.56	1.59	1.54	1.17	1.11
Total reducing sugars, %	8.6	8.5	6.7	8.2	8.5	6.6	7.9	8.3	7.2	8.0	9.1	8.6	11.0[3]
Wt. of tob., 1,000 cigts., g	823	822	730	867	863	760	1005	969	850	857	859	983	980
1,000 cigts., lbs.	1.8122	1.8095	1.6076	1.9090	1.9112	1.6736	2.2126	2.1329	1.8716	1.8870	1.8914	2.1642	2.1565
Rod Density, g/cc	0.266	0.264	0.245	0.268	0.267	0.246	0.279	0.270	0.242	0.266	0.266	0.277	0.273
[1]C.V., cc/10 g	30	30	36	29	31	35	30	32	36	30	30	35	35
C.V., cc/10 g (Corrected to 12% O.V.)	36	36	41	36	36	40	36	38	40	37	37	36	36
[1]Oven Volatiles, %	14.0	14.0	13.6	14.3	13.5	13.7	14.2	13.9	13.6	14.4	14.2	12.5	12.4

[1]Equilibrated at 75°F and 60% R.H. for 48 hrs.
[2]Data from C.I. No. 4-76.
[3]Results of Test #112, dated April 5, 1976, where a change was noted.

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